

## Research and Statistics

- A recent study by Case Western Reserve University indicated that one company they profiled obtains **at least a 50 percent rate of return** on its apprenticeship program, compared to hiring machinists off the street. Apprentices in the same study were more likely to finish their work on time, and were slightly more productive, compared to machinists hired off the street. <http://thedaily.case.edu/apprenticeships-worth-investment/>
- The return on investment for a registered apprenticeship program is **\$1.46 for every \$1 invested** in an apprentice. [http://caf-fca.org/wp-content/uploads/2014/08/Advantage\\_ROTI.pdf](http://caf-fca.org/wp-content/uploads/2014/08/Advantage_ROTI.pdf)
- Over 70% of 2016 college graduates plan on leaving their job within the first three years while registered apprenticeship has a demonstrated **89% three-year retention rate**. Moreover, **91% of apprentices retain employment** after conclusion of the apprenticeship program.
- Apprentices who completed their apprenticeships stay with the company to become employees in over 90% of reported cases. This retention rate is an incredible competitive advantage in a limited labor market, with an average **starting wage of over \$60,000 per year**. (This data was obtained from the Common Reporting Information System and the Registered Apprenticeship Partners Information Data System.)
- Dollar for dollar, no workforce training method packs as much punch as apprenticeship. A 2012 Mathematica evaluation of 10 States found that for every dollar invested in Apprenticeship, the tax returns (**return on investment**) were \$27 and **total benefits were more than \$35**. (Reed, D. et. al. July 25, 2012). An effectiveness assessment and cost-benefit analysis of Registered Apprenticeship in 10 States.) [https://wdr.doleta.gov/research/FullText\\_Documents/ETAOP\\_2012\\_10.pdf](https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf)
- In 2016, the number of apprentices in the U.S. (450,000) represented a relatively small proportion of the labor force compared with other industrialized nations. To put this number in a global context, the United States would need more than six times as many new apprentices to be on the same per capita level as Great Britain. It would take a **sixteen-fold increase for the U.S. to be on par with the number of apprentices in Germany**. (Center for American Progress: Training for Success A Policy to Expand Apprenticeships in the United States. 2013.) [https://cdn.americanprogress.org/wp-content/uploads/2013/11/apprenticeship\\_report.pdf](https://cdn.americanprogress.org/wp-content/uploads/2013/11/apprenticeship_report.pdf)
- In 2016, only about **20% of apprentices across the country were under age 25**, with the average age closer to 28. At the same time, there were close to 4 million youth under the age of 25 with a high school diploma who cannot find full-time work, many of whom could benefit from an apprenticeship. (Center for American Progress: Training for Success A Policy to Expand Apprenticeships in the United States. 2013.) [https://cdn.americanprogress.org/wp-content/uploads/2013/11/apprenticeship\\_report.pdf](https://cdn.americanprogress.org/wp-content/uploads/2013/11/apprenticeship_report.pdf)
- Underutilization of apprenticeship also is evidenced when one considers that by comparison there are over 19 million students in 2- and 4-year American colleges and universities. **This underutilization of apprenticeship represents a significant lost opportunity to efficiently train American workers** with 21st century skills and create a stronger American economy. (National Center for Education Statistics, Projections of Education Statistics through 2021, Table. 20) [http://nces.ed.gov/programs/projections/projections2021/tables/table\\_20.asp](http://nces.ed.gov/programs/projections/projections2021/tables/table_20.asp)
- Apprenticeship graduates also earn over the course of their careers **\$300,000 more on average in wages and benefits than their peers** who do not participate in a Registered Apprenticeship. (An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States. 2012.) [http://www.mathematicampr.com/~media/publications/PDFs/labor/registered\\_apprenticeship\\_10states.pdf](http://www.mathematicampr.com/~media/publications/PDFs/labor/registered_apprenticeship_10states.pdf)



- Internal production data from two companies helped put a dollar value on some of the benefits <http://www.esa.gov/reports/benefits-and-costs-apprenticeships-business-perspective> :
- Dartmouth-Hitchcock Medical Center found that its **Medical Assistant apprenticeship program nearly paid for itself within the first year.**
  - The program had an internal rate of return of 40 percent compared to using overtime with existing medical staff, and it was essential to a major expansion and re-organization of its provision of medical services.
  - Reducing the long-term use of overtime also helped relieve staff burnout and turnover, while quality of care remained high after the MA apprentices were introduced.
- **Siemens USA obtains at least a 50 percent rate of return** on its apprenticeship program, compared to hiring machinists off the street.
  - Most of the gains stem from how apprenticeship allows Siemens to more flexibility to fill its capacity in Charlotte, NC, which makes generators for electric utilities.
  - Siemens' apprentice graduates are well suited for tasks like repair work, which involve more judgment than standard projects. One year of this additional capacity is worth an amount similar to the cost of a worker's apprenticeship program.
  - Apprentices also were more likely to finish their work on time, and were slightly more productive, compared to machinists hired off the street.
- DOL, in coordination with Registered Apprenticeship sponsors and other key stakeholders, continues to advance this key policy goal but more work must be done and greater progress must be made. To illustrate this point, **"in 2012, only 6% of active apprentices**

**in the United States were women, up slightly from 5 % in 2008"**. (Center for American Progress. Training for Success: A Policy to Expand Apprenticeships in the United States.) <https://www.americanprogress.org/issues/labor/report/2013/12/02/79991/training-for-success-a-policy-to-expand-apprenticeships-in-the-united-states/>

